

What is claimed is:

1. A method for providing a desired enclosed atmospheric environment within an enclosure for reducing the body weight of a user periodically residing in the enclosed atmospheric environment and breathing the same, comprising:

5 first obtaining predictive data indicative of a future composition of constituent gases of said enclosed atmospheric environment, said predictive data being dependent upon each of (a) through (c) following:

- 10 (a) data indicative of an expected gas exchange rate between said enclosed atmospheric environment and an atmospheric environment external to said enclosure, wherein said enclosure is expected to have a first predetermined state related to a gas permeability therethrough;
- (b) data indicative of an approximate volume of said enclosure; and
- 15 (c) data indicative of an expected rate at which one or more devices, operably associated with said enclosure for changing said enclosed atmospheric environment, changes a relative amount of at least one of the gases of said enclosed atmospheric environment, said one or more devices including one or more of: an oxygen concentrator, a CO₂ scrubber and a nitrogen generator;

said predictive data selected from the group consisting of:

- 20 (a) data indicative of an oxygen volume in said enclosed environment;
- (b) data indicative of an oxygen consumption by one or more users in said enclosed environment;

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- (c) data indicative of a rate of oxygen removal;
- (d) data indicative of an amount of air exiting said enclosed environment through said enclosure;
- (e) data indicative of an amount of air entering said enclosed environment through said enclosure;
- (f) data indicative of a volume of CO₂ in said enclosed environment;
- 30 (g) data indicative of a volume of CO₂ being produced by one or more users;
- (h) data indicative of a CO₂ production from one or more users of said enclosed environment;
- (i) data indicative of a CO₂ portion of said air exchange rate exiting said enclosed environment;
- 35 (j) data indicative of a CO₂ portion of said air exchange rate entering said enclosed environment;
- (k) data indicative of an amount of CO₂ removed from said enclosed environment by said CO₂ scrubber;
- (l) data indicative of a relative amount of oxygen in said enclosed environment;
- 40 (m) data indicative of a simulated altitude in said enclosed environment; and
- (n) data indicative of a concentration of CO₂ in said enclosed environment;
- 45 using said predictive data to provide an interior of said enclosure with a desired

simulated altitude;

providing control information for controlling a composition of constituent gases of said enclosed atmospheric environment for simulating said desired simulated altitude which is different from that of the atmospheric environment external to said enclosure;

50 wherein said control information is used for changing a composition of said constituent gases of said enclosed atmospheric environment.

2. A method for providing a desired enclosed atmospheric environment within an enclosure for reducing the body weight of a user periodically residing in the enclosed atmospheric environment and breathing the same, comprising:

first obtaining predictive data indicative of a future composition of constituent
5 gases of said enclosed atmospheric environment, said predictive data being dependent upon each of (a) through (c) following:

- (a) data indicative of an expected gas exchange rate between said enclosed atmospheric environment and an atmospheric environment external to said enclosure, wherein said enclosure is
10 expected to have a first predetermined state related to a gas permeability therethrough;
- (b) data indicative of an approximate volume of said enclosure; and
- (c) data indicative of an expected rate at which one or more devices, operably associated with said enclosure for changing said enclosed
15 atmospheric environment, changes a relative amount of at least one of the gases of said enclosed atmospheric environment, said one or more devices including one or more of: an oxygen concentrator, a CO₂ scrubber and a nitrogen generator;

using said predictive data to provide an interior of said enclosure with a desired
20 simulated altitude;

providing control information for controlling a composition of constituent gases of said enclosed atmospheric environment for simulating said desired simulated altitude which is different from that of the atmospheric environment external to said enclosure;

wherein said control information is used for changing a composition of said
25 constituent gases of said enclosed atmospheric environment; and
wherein an oxygen concentrator is used to provide the interior of said enclosure
with a simulation of a desired altitude.

3. A method for providing a desired enclosed atmospheric environment within an enclosure for reducing the body weight of a user periodically residing in the enclosed atmospheric environment and breathing the same, comprising:

first obtaining predictive data indicative of a future composition of constituent
5 gases of said enclosed atmospheric environment, said predictive data being dependent upon each of (a) through (c) following:

(a) data indicative of an expected gas exchange rate between said enclosed atmospheric environment and an atmospheric environment external to said enclosure, wherein said enclosure is
10 expected to have a first predetermined state related to a gas permeability therethrough;

(b) data indicative of an approximate volume of said enclosure; and

(c) data indicative of an expected rate at which one or more devices, operably associated with said enclosure for changing said enclosed
15 atmospheric environment, changes a relative amount of at least one of the gases of said enclosed atmospheric environment, said one or more devices including one or more of: an oxygen concentrator, a CO₂ scrubber and a nitrogen generator;

using said predictive data to provide an interior of said enclosure with a desired
20 simulated altitude;

providing control information for controlling a composition of constituent gases of said enclosed atmospheric environment for simulating said desired simulated altitude which is different from that of the atmospheric environment external to said enclosure;

wherein said control information is used for changing a composition of said
25 constituent gases of said enclosed atmospheric environment; and

wherein an oxygen concentrator is positioned outside said enclosure and provides
the interior of said enclosure with a simulation of a desired altitude.

4. A method for providing a desired enclosed atmospheric environment within an enclosure for reducing the body weight of a user periodically residing in the enclosed atmospheric environment and breathing the same, comprising:

first obtaining predictive data indicative of a future composition of constituent
5 gases of said enclosed atmospheric environment, said predictive data being dependent upon each of (a) through (c) following:

- 10 (a) data indicative of an expected gas exchange rate between said enclosed atmospheric environment and an atmospheric environment external to said enclosure, wherein said enclosure is expected to have a first predetermined state related to a gas permeability therethrough;
- (b) data indicative of an approximate volume of said enclosure; and
- 15 (c) data indicative of an expected rate at which one or more devices, operably associated with said enclosure for changing said enclosed atmospheric environment, changes a relative amount of at least one of the gases of said enclosed atmospheric environment, said one or more devices including one or more of: an oxygen concentrator, a CO₂ scrubber and a nitrogen generator;

using said predictive data to provide an interior of said enclosure with a
20 simulation of a desired altitude, said one or more components including said one or more devices for providing said future composition of constituent gases having a desired characteristic of said enclosed atmospheric environment indicative of the desired simulated altitude;

providing control information for controlling a composition of constituent gases
25 of said enclosed atmospheric environment for simulating said desired simulated altitude which is different from that of the atmospheric environment external to said enclosure;

wherein said control information is used for changing a composition of said constituent gases of said enclosed atmospheric environment; and

wherein an oxygen concentrator, providing oxygen depleted air to the interior of
30 said enclosure, is outside of said enclosure, and is used to provide the interior of said

enclosure with a simulation of a desired altitude.

5. The method of Claim 1, wherein said user further has a reduction in appetite.

6. The method of Claim 1, wherein said user is obese.

7. The method of Claim 1, wherein said user experiences changes in their metabolism that leads to weight loss of said user.

8. The method of Claim 1, further comprising repeating said method over a prolonged period of time in order to reduce the appetite of the user and to produce changes in the user's metabolism so as to promote weight loss of the user.

9. The method of Claim 1, wherein said user experiences a reduction in a diabetic condition.

10. The method of Claim 1, wherein said user experiences a reduction in a coronary heart condition of the user.

11. The method of Claim 1, wherein said user experiences a reduction in a proclivity of stroke of the user.

12. The method of Claim 1, wherein said user experiences a reduction in a presence of cancer in the user.

13. The method of Claim 1, wherein said user experiences a reduction in a lung condition caused by smoking.